

REMARKS

Claims 1-7, 9-10, and 29-45 are pending in the present U.S. Patent Application no. 10/614,393. Claims 29-45 are withdrawn from consideration. Claim 6 is rejected under 35 U.S.C. 112, as failing to comply with the written description requirement and as being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention. The drawings are objected to under 37 CFR 1.83(a). Claims 1, 2, 4-7, 9, and 10 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,740,984 to Morgenstern (hereinafter "Morgenstern '984"). Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Morgenstern '984 as applied to claims 1, 2, 4-7, 9 and 10, and further in view of U.S. Patent No. 3,794,274 to Eknes (hereinafter "Eknes '274"). Applicant respectfully traverses these rejections.

Claim Rejections under 35 U.S.C. § 112

Claim 6 was rejected under 35 U.S.C. § 112 because the subject matter that is not described is the fuselage portion comprising a flying wing with a wing. In response, Claim 6 has been amended to state that the combination of the fuselage and wing comprises a flying wing. Accordingly, removal of the rejection of Claim 6 under 35 U.S.C. 112 is requested.

Drawings

The drawings were objected to under 37 CFR § 1.83(a) as failing to show a flying wing. In response, Applicant draws attention to Figure 3F and paragraph [0037] in the specification as support for Claim 6. Accordingly, Applicant does not believe that corrected drawing sheets are required in reply to this Office Action, and requests removal of the objection to the drawings.

Claim Rejections 35 U.S.C. § 102

In response to the rejection of Claims 1, 2, 4-7, 9, and 10 under 35 U.S.C. § 102(b) as being anticipated by Morgenstern '984, Applicant asserts that all wings do not inherently carry lift at their trailing edge. Diagram A below shows the pressure distribution over the

upper and lower surfaces of a typical airfoil section.

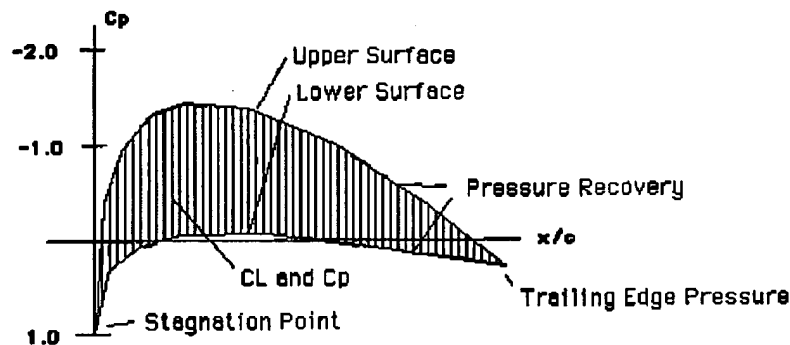


DIAGRAM A

(Source: "Airfoil Pressure Distributions", <http://adg.stanford.edu/aa241/airfoils/airfoilpressures.html>, attached hereto in Appendix A).

Note that Diagram A shows the pressures on the upper and lower surfaces of a typical wing cross-section coming together at a positive pressure (i.e., greater than 0) at the trailing edge. This means that the wing is not generating lift at the trailing edge, since lifting force is only generated when the difference between the pressure on the upper and lower surfaces is negative. Further, positive pressures at the trailing edge indicate a compression, not an expansion. In contrast, Claim 1 states: "the wing is configured to carry lifting force to the trailing edge of the wing to create an expansion at the trailing edge of the wing that reduces aft sonic boom ground shock strength." Creating an expansion at the trailing edge of the wing requires negative pressure forces acting at the trailing edge of the upper surface of the wing that are greater in magnitude than the positive pressure forces on the lower surface of the wing (i.e., lifting force at the trailing edge), which is not shown in Diagram A.

Further, Claim 1 requires the expansion to reduce sonic boom ground shock strength. Thus, even if there are wings that are shaped to generate lift at their trailing edges, the lifting force must be sufficient to create an expansion that is capable of reducing aft sonic boom ground shock strength in order to anticipate Claim 1. Such a configuration is not inherent in all wings, and Claim 1 is believed to be allowable over the prior art for at least these reasons. Removal of the rejection of Claim 1 under 35 U.S.C. § 102(b) is respectfully requested.

Claims 2-7, and 9-10 depend from Claim 1 and include features that further distinguish them from the prior art.

In particular, Claim 2 requires a shock cancellation shroud (502) (Fig. 5B) around the engine nacelle. The shock cancellation shroud is a separate and distinct from the engine nacelle. Morgenstern '984 does not disclose or even suggest such a feature, but rather discloses control surfaces 20, 24 at the nose and tail of the fuselage to control the shock waves. Claim 2 is believed to be allowable over the prior art for at least these reasons.

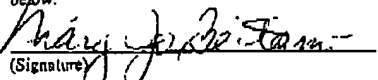
Claims 3-5, 7, and 9-10 depend ultimately from Claims 1 and 2, and are believed to be allowable for at least the same reasons as Claims 1 and 2.

Regarding claims 4 and 5, Applicant does not agree that a reflexed portion can be seen in the wings in Morgenstern '984, and requests further clarification of this rationale for rejecting Claims 4 and 5 in the event Claims 4 and 5 are still not considered to be allowable.

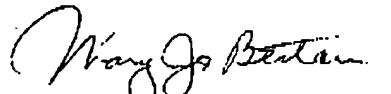
CONCLUSION

Claim 6 has been amended. Claims 1-7 and 9-10 are believed to be in condition for allowance and a notice to that effect is solicited. The Examiner is requested to contact the undersigned at (949) 251-0250 in the event there are other issues that can be resolved via telephone.

I hereby certify that this correspondence is being facsimile transmitted to the USPTO, Central Number at (703) 872-9306 on the date shown below:


(Signature)
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Respectfully submitted,


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